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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/589,287A

DATE: 01/17/2002

TIME: 12:55:15

Input Set : A:\343P3C1-SL updated Dec-01.txt

Output Set: N:\CRF3\01172002\I589287A.raw

P.S

3 <110> APPLICANT: Yu et al.
5 <120> TITLE OF INVENTION: Antibodies to Neutrokine-alpha
7 <130> FILE REFERENCE: PF343P3C1
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/589,287A
C--> 9 <141> CURRENT FILING DATE: 2000-06-08
9 <150> PRIOR APPLICATION NUMBER: 09/589,287
10 <151> PRIOR FILING DATE: 2000-06-08
12 <150> PRIOR APPLICATION NUMBER: 09/507,968
13 <151> PRIOR FILING DATE: 2000-02-22
15 <150> PRIOR APPLICATION NUMBER: 60/122,388
16 <151> PRIOR FILING DATE: 1999-03-02
18 <150> PRIOR APPLICATION NUMBER: 60/124,097
19 <151> PRIOR FILING DATE: 1999-03-12
21 <150> PRIOR APPLICATION NUMBER: 60/126,599
22 <151> PRIOR FILING DATE: 1999-03-26
24 <150> PRIOR APPLICATION NUMBER: 60/127,598
25 <151> PRIOR FILING DATE: 1999-04-02
27 <150> PRIOR APPLICATION NUMBER: 60/130,412
28 <151> PRIOR FILING DATE: 1999-04-16
30 <150> PRIOR APPLICATION NUMBER: 60/130,696
31 <151> PRIOR FILING DATE: 1999-04-23
33 <150> PRIOR APPLICATION NUMBER: 60/131,278
34 <151> PRIOR FILING DATE: 1999-04-27
36 <150> PRIOR APPLICATION NUMBER: 60/131,673
37 <151> PRIOR FILING DATE: 1999-04-29
39 <150> PRIOR APPLICATION NUMBER: 60/136,784
40 <151> PRIOR FILING DATE: 1999-05-28
42 <150> PRIOR APPLICATION NUMBER: 60/142,659
43 <151> PRIOR FILING DATE: 1999-07-06
45 <150> PRIOR APPLICATION NUMBER: 60/145,824
46 <151> PRIOR FILING DATE: 1999-07-27
48 <150> PRIOR APPLICATION NUMBER: 60/167,239
49 <151> PRIOR FILING DATE: 1999-11-24
51 <150> PRIOR APPLICATION NUMBER: 60/168,624
52 <151> PRIOR FILING DATE: 1999-12-03
54 <150> PRIOR APPLICATION NUMBER: 60/171,108
55 <151> PRIOR FILING DATE: 1999-12-16
57 <150> PRIOR APPLICATION NUMBER: 60/171,626
58 <151> PRIOR FILING DATE: 1999-12-23
60 <150> PRIOR APPLICATION NUMBER: 60/176,015
61 <151> PRIOR FILING DATE: 2000-01-14
63 <150> PRIOR APPLICATION NUMBER: 09/255,794
64 <151> PRIOR FILING DATE: 1999-02-23

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OK to Enter

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Input Set : A:\343P3C1-SL updated Dec-01.txt

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66 <150> PRIOR APPLICATION NUMBER: 09/005,874
67 <151> PRIOR FILING DATE: 1998-01-12
69 <150> PRIOR APPLICATION NUMBER: 60/036,100
70 <151> PRIOR FILING DATE: 1997-01-14
72 <150> PRIOR APPLICATION NUMBER: PCT/US96/17957
73 <151> PRIOR FILING DATE: 1996-10-25
75 <160> NUMBER OF SEQ ID NOS: 42
77 <170> SOFTWARE: PatentIn Ver. 2.1
79 <210> SEQ ID NO: 1
80 <211> LENGTH: 1100
81 <212> TYPE: DNA
82 <213> ORGANISM: Homo sapiens
84 <220> FEATURE:
85 <221> NAME/KEY: CDS
86 <222> LOCATION: (147)..(1001)
87 <223> OTHER INFORMATION:
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90 aaattcagga taactctcct gaggggtgag ccaagccctg ccatgtagtg cacgcaggac      60
92 atcaacaaac acagataaca ggaaatgata cattccctgt ggtaacttat tctaaaggcc      120
94 ccaaccttca aagttcaagt agtgat atg gat gac tcc aca gaa agg gag cag      173
95                               Met Asp Asp Ser Thr Glu Arg Glu Gln
96                               1                               5
98 tca cgc ctt act tct tgc ctt aag aaa aga gaa gaa atg aaa ctg aag      221
99 Ser Arg Leu Thr Ser Cys Leu Lys Lys Arg Glu Glu Met Lys Leu Lys
100 10                               15                               20                               25
102 gag tgt gtt tcc atc ctc cca cgg aag gaa agc ccc tct gtc cga tcc      269
103 Glu Cys Val Ser Ile Leu Pro Arg Lys Glu Ser Pro Ser Val Arg Ser
104                               30                               35                               40
106 tcc aaa gac gga aag ctg ctg gct gca acc ttg ctg ctg gca ctg ctg      317
107 Ser Lys Asp Gly Lys Leu Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu
108                               45                               50                               55
110 tct tgc tgc ctc acg gtg gtg tct ttc tac cag gtg gcc gcc ctg caa      365
111 Ser Cys Cys Leu Thr Val Val Ser Phe Tyr Gln Val Ala Ala Leu Gln
112                               60                               65                               70
114 ggg gac ctg gcc agc ctc cgg gca gag ctg cag ggc cac cac gcg gag      413
115 Gly Asp Leu Ala Ser Leu Arg Ala Glu Leu Gln Gly His His Ala Glu
116                               75                               80                               85
118 aag ctg cca gca gga gca gga gcc ccc aag gcc ggc ctg gag gaa gct      461
119 Lys Leu Pro Ala Gly Ala Gly Ala Pro Lys Ala Gly Leu Glu Glu Ala
120 90                               95                               100                               105
122 cca gct gtc acc gcg gga ctg aaa atc ttt gaa cca cca gct cca gga      509
123 Pro Ala Val Thr Ala Gly Leu Lys Ile Phe Glu Pro Pro Ala Pro Gly
124                               110                               115                               120
126 gaa ggc aac tcc agt cag aac agc aga aat aag cgt gcc gtt cag ggt      557
127 Glu Gly Asn Ser Ser Gln Asn Ser Arg Asn Lys Arg Ala Val Gln Gly
128                               125                               130                               135
130 cca gaa gaa aca gtc act caa gac tgc ttg caa ctg att gca gac agt      605
131 Pro Glu Glu Thr Val Thr Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser
132                               140                               145                               150

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134 gaa aca cca act ata caa aaa gga tct tac aca ttt gtt cca tgg ctt      653
135 Glu Thr Pro Thr Ile Gln Lys Gly Ser Tyr Thr Phe Val Pro Trp Leu
136      155      160      165
138 ctc agc ttt aaa agg gga agt gcc cta gaa gaa aaa gag aat aaa ata      701
139 Leu Ser Phe Lys Arg Gly Ser Ala Leu Glu Glu Lys Glu Asn Lys Ile
140 170      175      180      185
142 ttg gtc aaa gaa act ggt tac ttt ttt ata tat ggt cag gtt tta tat      749
143 Leu Val Lys Glu Thr Gly Tyr Phe Phe Ile Tyr Gly Gln Val Leu Tyr
144      190      195      200
146 act gat aag acc tac gcc atg gga cat cta att cag agg aag aag gtc      797
147 Thr Asp Lys Thr Tyr Ala Met Gly His Leu Ile Gln Arg Lys Lys Val
148      205      210      215
150 cat gtc ttt ggg gat gaa ttg agt ctg gtg act ttg ttt cga tgt att      845
151 His Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile
152      220      225      230
154 caa aat atg cct gaa aca cta ccc aat aat tcc tgc tat tca gct ggc      893
155 Gln Asn Met Pro Glu Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly
156      235      240      245
158 att gca aaa ctg gaa gaa gga gat gaa ctc caa ctt gca ata cca aga      941
159 Ile Ala Lys Leu Glu Glu Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg
160 250      255      260      265
162 gaa aat gca caa ata tca ctg gat gga gat gtc aca ttt ttt ggt gca      989
163 Glu Asn Ala Gln Ile Ser Leu Asp Gly Asp Val Thr Phe Phe Gly Ala
164      270      275      280
166 ttg aaa ctg ctg tgacctactt acaccatgtc thtagctatt ttcctccctt      1041
167 Leu Lys Leu Leu
168      285
170 tctctgtacc tctaagaaga aagaatctaa ctgaaaatac caaaaaaaaaa aaaaaaaaaa      1100
173 <210> SEQ ID NO: 2
174 <211> LENGTH: 285
175 <212> TYPE: PRT
176 <213> ORGANISM: human
178 <400> SEQUENCE: 2
180 Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu
181 1      5      10      15
183 Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro
184      20      25      30
186 Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu
187      35      40      45
189 Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val
190      50      55      60
192 Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg
193 65      70      75      80
195 Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly
196      85      90      95
198 Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu
199      100      105      110
201 Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn
202      115      120      125

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```

204 Ser Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln
205      130      135      140
207 Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys
208 145      150      155      160
210 Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser
211      165      170      175
213 Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr
214      180      185      190
216 Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met
217      195      200      205
219 Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu
220      210      215      220
222 Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu
223 225      230      235      240
225 Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu Gly
226      245      250      255
228 Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu
229      260      265      270
231 Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu
232      275      280      285
234 <210> SEQ ID NO: 3
235 <211> LENGTH: 233
236 <212> TYPE: PRT
237 <213> ORGANISM: Homo sapiens
239 <400> SEQUENCE: 3
240 Met Ser Thr Glu Ser Met Ile Arg Asp Val Glu Leu Ala Glu Glu Ala
241 1 5 10 15
243 Leu Pro Lys Lys Thr Gly Gly Pro Gln Gly Ser Arg Arg Cys Leu Phe
244 20 25 30
246 Leu Ser Leu Phe Ser Phe Leu Ile Val Ala Gly Ala Thr Thr Leu Phe
247 35 40 45
249 Cys Leu Leu His Phe Gly Val Ile Gly Pro Gln Arg Glu Glu Phe Pro
250 50 55 60
252 Arg Asp Leu Ser Leu Ile Ser Pro Leu Ala Gln Ala Val Arg Ser Ser
253 65 70 75 80
255 Ser Arg Thr Pro Ser Asp Lys Pro Val Ala His Val Val Ala Asn Pro
256 85 90 95
258 Gln Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg Ala Asn Ala Leu
259 100 105 110
261 Leu Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu Val Val Pro Ser
262 115 120 125
264 Glu Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly
265 130 135 140
267 Cys Pro Ser Thr His Val Leu Leu Thr His Thr Ile Ser Arg Ile Ala
268 145 150 155 160
270 Val Ser Tyr Gln Thr Lys Val Asn Leu Leu Ser Ala Ile Lys Ser Pro
271 165 170 175
273 Cys Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Lys Pro Trp Tyr Glu
274 180 185 190

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/589,287A

DATE: 01/17/2002

TIME: 12:55:15

Input Set : A:\343P3C1-6L updated Dec-01.txt

Output Set: N:\CRF3\01172002\I589287A.raw

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276 Pro Ile Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Arg Leu
277      195                      200                      205
279 Ser Ala Glu Ile Asn Arg Pro Asp Tyr Leu Asp Phe Ala Glu Ser Gly
280      210                      215                      220
282 Gln Val Tyr Phe Gly Ile Ile Ala Leu
283 225                      230
286 <210> SEQ ID NO: 4
287 <211> LENGTH: 205
288 <212> TYPE: PRT
289 <213> ORGANISM: Homo sapiens
291 <400> SEQUENCE: 4
292 Met Thr Pro Pro Glu Arg Leu Phe Leu Pro Arg Val Arg Gly Thr Thr
293 1      5      10      15
295 Leu His Leu Leu Leu Leu Gly Leu Leu Leu Val Leu Leu Pro Gly Ala
296      20      25      30
298 Gln Gly Leu Pro Gly Val Gly Leu Thr Pro Ser Ala Ala Gln Thr Ala
299      35      40      45
301 Arg Gln His Pro Lys Met His Leu Ala His Ser Thr Leu Lys Pro Ala
302      50      55      60
304 Ala His Leu Ile Gly Asp Pro Ser Lys Gln Asn Ser Leu Leu Trp Arg
305 65      70      75      80
307 Ala Asn Thr Asp Arg Ala Phe Leu Gln Asp Gly Phe Ser Leu Ser Asn
308      85      90      95
310 Asn Ser Leu Leu Val Pro Thr Ser Gly Ile Tyr Phe Val Tyr Ser Gln
311      100     105     110
313 Val Val Phe Ser Gly Lys Ala Tyr Ser Pro Lys Ala Thr Ser Ser Pro
314      115     120     125
316 Leu Tyr Leu Ala His Glu Val Gln Leu Phe Ser Ser Gln Tyr Pro Phe
317      130     135     140
319 His Val Pro Leu Leu Ser Ser Gln Lys Met Val Tyr Pro Gly Leu Gln
320 145     150     155     160
322 Glu Pro Trp Leu His Ser Met Tyr His Gly Ala Ala Phe Gln Leu Thr
323      165     170     175
325 Gln Gly Asp Gln Leu Ser Thr His Thr Asp Gly Ile Pro His Leu Val
326      180     185     190
328 Leu Ser Pro Ser Thr Val Phe Phe Gly Ala Phe Ala Leu
329      195     200     205
332 <210> SEQ ID NO: 5
333 <211> LENGTH: 244
334 <212> TYPE: PRT
335 <213> ORGANISM: Homo sapiens
337 <400> SEQUENCE: 5
338 Met Gly Ala Leu Gly Leu Glu Gly Arg Gly Gly Arg Leu Gln Gly Arg
339 1      5      10      15
341 Gly Ser Leu Leu Leu Ala Val Ala Gly Ala Thr Ser Leu Val Thr Leu
342      20      25      30
344 Leu Leu Ala Val Pro Ile Thr Val Leu Ala Val Leu Ala Leu Val Pro
345      35      40      45
347 Gln Asp Gln Gly Gly Leu Val Thr Glu Thr Ala Asp Pro Gly Ala Gln

```

→ Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/589,287A

DATE: 01/17/2002

TIME: 12:55:16

Input Set : A:\343P3C1-SL updated Dec-01.txt

Output Set: N:\CRF3\01172002\I589287A.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7

L:508 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7

L:510 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7

L:511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7

L:512 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7

L:695 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8

L:698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8

L:700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8

L:701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8

L:702 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8

L:703 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8

L:794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9

L:795 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9

L:796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9

L:797 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9

L:798 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9

L:799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9

L:800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9

L:1453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35

L:1481 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36